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ABSTRACT

Newspapers are facing challenges from the new media of teletext, viewdata systems, and home computers. Teletext, which provides formated pages of text broadcast for viewing on a television screen, provides news immediately, simply, conveniently, and inexpensively. However, it does not provide the browse and scan options of newspapers. Of greater potential impact is the development of viewdata systems which use the television, telephone, and computer so that online searching can be done from the home. The system can also be modified to use a home computer rather than a television screen. Changes in how people spend their leisure time and their disposable income, combined with the stagnation of newspaper readership and the increasingly important role of information in society, suggest that newspapers should look into new options. If newspapers would utilize their information collection, analysis, storage, and dissemination capabilities, the production of a newspaper could be only one part of their business. Information marketing possibilities for both the business and the home in the future include using electronic news records to develop online databases, selling information in both electronic and clipping forms, and providing research services. (Author/BK)

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PAPER PRESENTED AT SUMMER WORKSHOP OF ARIZONA NEWSPAPER ASSOCIATION, FLAGSTAFF, JUNE 21, 1980.

TITLE: "ANSWERING THE CHALLENGE OF TELE TEXT, VIEWDATA SYSTEMS AND OTHER FAST GROWING COMMMUNICATIONS, SUCH AS HOME COMPUTERS."

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Sandra K. Hall

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

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The title of my presentation is different from the one that appears in the program. I've expanded the scope to include viewdata and home computer systems. I think they may have a larger impact on newspapers than will teletext.

What I'm really addressing is the disguised question -- are newspapers dying and what can we do about it.

No, they're not dying. By the end of my speech, I want to have touched on some options for what newspapers can do about the new inventions to contribute to the continued health of newspapers.

Let's begin with an analogy that illustrates what can happen when people are faced with new inventions.

Take Johannes Gutenberg, the father of modern printing. If we gave him any type of press such as a linotype, a stereotype or an offset as a replacement to his movable type, he would have examined it thoughtfully and what would he use it for? He would have printed Bibles, because that was what he saw as the need at that time.

Whenever new inventions come along, it's natural to talk about their applications in terms of doing things we're familiar with. Teletext, because we're unsure what it can do is seen as: a threat to newspapers; not a threat to newspapers. It's called "printed radio and called the "electronic newspaper". People talk about it in terms of taking present products, radio and newspapers, and applying them to the new invention teletext, like the Gutenberg analogy.

You saw what teletext is in the KSL video. To quickly review, it's formated pages of text assembled and broadcast at a TV station. The viewer uses a decoder to make the teletext visible on a TV screen. It's received in normally unused lines of the set.

A viewer can either view the pages in sequence from one (1) to typically one hundred (100). Some more sophisticated decoders have memory built into them that alerts the viewer to news updates of subjects of special interest to him, such as further explosions of Mt. St. Helens.

Teletext seems to be gambling its success on the public's need for immediate information. This is a risky assumption. I question whether news is any more valuable for having it sooner. What difference does it make, if you find out about a new eruption of Mt. St. Helens at 8:00 p.m. or 7:00 a.m.? Unless, of course, you live there. If value has to be assigned to a news story, it's probably not in its immediacy of delivery but in the explanation, analysis and interpretation that a newsroom team does when it steps back from the event an hour or two, or a day or two later to put the event into perspective for the reader.

Some news in the business would probably can have value assigned to it based on immediacy. Value can be assigned to the absence of important information too.

I think it's important when we talk about the potential impact of teletext, viewdata etc. that we keep distinct the two audiences of home and commercial users.

Teletext was developed in 1970 by the British Broadcasting Corporation. About 22 countries are experimenting with it. As you saw on the KSL video, it's quite recent in the U.S.A., dating from 1975. There's lots to be

answered, in addition to finding its best applications, so development will probably continue slowly. So far as I could find out, there's not much interest amongst newspapers in it. Newspapers seem to be looking more closely at cable options and viewdata.

From a user's point of view, these are supposed to be the main advantages that teletext has over a newspaper. As I said before, people aren't sure of its potential applications so it's talked about in terms newspapers which we already know.

Its advantage are seen as four main ones -- its immediate, simple, convenient and inexpensive.

That same checklist applies to newspapers too, so how can they be dying?

In addition to working on an untested assumption that news has more value if it's immediate, I challenge the point that teletext has an advantage in that it's convenient because the viewer can receive <u>just</u> the specific news he wants. Of course he can already do that with a newspaper. He can go straight to sports, and ignore fashion or vice versa. There's another problem with this and that is it assumes that people know what they're interested in. I think that on the newspaper's greatest strengths is that people don't know their specific interests so they typically browse and scan. People get exposed to stories they don't know they're interested in to ask for specifically, for example human interest stories. Keep in mind that when a person reads a newspaper, his peripheral vision takes in four (4) or five (5) additional stories, that he may well find of interest.

Some specific items will probably be handled well by teletext. This might include listings such as stock prices, airline schedules, exam results, sports results, concerts etc, and especially those that can be handled computer to computer.

I'm not sure how satisfactory ads will be on teletext. The graphics are so far marginal. Also, it's assumed once again that people will be very specific in their selection and viewing of an ad.

I question whether a person who is house hunting in classifieds in either teletext or newspapers has a specific house in mind. This ignores the browsing that people do in newspapers classified ads when they're not necessarily interested in buying.

For example, sometimes people look to see what a house might sell for, and hobbyists browse antique columns from curiosity to see what collectibles are for sale at what price.

One possible use of advertising on teletext, is as a tie in of local ads with national. A page reference on a national ad might direct the viewer to particular pages of the teletext magazine for local information or availability, store hours etc.

I'm not at all convinced that teletext poses a great threat to papers.

It might very well find its best use in what it was developed for, for subtitles for the deaf & minorities.

Other uses are being found that don't really impact newspapers. Nationally the printed telephone directories in France are being replaced by teletext listings. The public is given the decoder free. It's cheaper and more efficient to update and deliver listings in teletext form than

in printed directory form in the long run.

The other major technological development, viewdata, however, could have enormous impact on newspapers. Whereas teletext is TV plus decoder plus broadcast signal, viewdata is TV plus telephone plus computer. The use of the telephone makes the system two way from the home to the computer, and back.

The potential is mind boggling and Orwellian and conceivable every home could be connected to all the world's information. It's become feasible since computer costs have come down significantly. Yet, on line searching of databases is not new -- large corporations, hospitals and libraries have accessed databases by telephone the last 15 years. What is new is that these bases can now be searched from the home.

There's a lot of big companies, including newspapers, who smell big bucks in viewdata, and have taken out licenses. They include -- Knight Ridder, Dow Jones, Dallas Morning News, GTE, ITT, TI and RCA amongst others.

Knight Ridder is the first system to be operational in the U.S. The system, called Viewtron is being tested on about 200 families in Florida. It's modelled on the system pioneered by the British Post Office called Prestel, which became operational in 1978.

It works like this:

A viewer must be aware of what information he's seeking, as he will be paying for that information. It's not enough to think he'd like to browse through some material in the database on vacations. He need to know something more specific, like "vacations in the west". and more specifically, "river running" or "mountain climbing".

He dials or activates telephone connection with the computer. Once the computer contact is acknowledged, he keys in a code or password to use the system and initiate billings. Each page of information that is supplied is priced. In Great Britain, average prices are 20¢ to 40¢ cents per page, with some pages offered cheaper to consumers than businesses.

After the user has signed on, he chooses a database, which is really a specialized library on a subject, e.g. travel. The databases are usually not assembled by the computer company, they're supplied by information brokers, or owners of the information who often created them primarily for their own in house use.

After the user has chosen the desired reference, he is directed to the appropriate page. The information can either be read on the screen, and/or a copy can be mailed or printed.

At the end of the month the user receives a bill for information as part of his phone bill.

One home system that is different because it uses a home computer rather than a TV set is called The Source. It's gambling on people having more disposable income available to pay $500.00 or so for a home computer. It sound like a reasonable gamble: IBM is now making home computers to try to carve out a piece of the sales of one quarter million home computers sold annually.

The Source has about 5,000 subscribers after its first year of operation and is signing up new ones at the rate of 500 per month.

It describes itself as America's information utility and is staking

its future on Americans discovering the need for a new and indispensible utility, information.

So far their biggest customers have been computer hobbyists who like the dual ability to access databases and to have programming capability at home. There's at least two outfits in Arizona at Computerland in Phoenix and Tucson and it's definitely worth a visit. The Source has over 100 databases. They include the NYT, UPI, horoscopes, an electronic mail order company, etc. They have 1,500 others that they're currently evaluating for market appeal.

In addition of a one time subscription fee of $100.00, the customers pays for the computer time used in increments of minutes. Rates are $15.00 per hour prime time and $2.75 off peak, broken down into minutes. This is very reasonable, when most academic and commercial bibliographic databases charge anywhere from $60.00 to $200.00 per hour.

Another viewdata system that's worth watching is owned by the Columbus Dispatch in Ohio. It went live earlier this month. It uses its own recycled electronic recored of the news as the basis.

These systems that employ home computers rather than television, overcome the obvious problem of how a family can view its favorite TV show and also use a database simultaneously. Given a choice, I think a lot of people will purchase a home computer, rather than an extra TV set for the same price.

Before we talk about what newspapers can do to meet the challenge of teletext and viewdata, I want to give you a quick run down of some

trends in three key areas:

1. people trends
2. newspaper trends
3. information trends

When considering options that newspapers have in choosing to ally themselves perhaps with teletext, viewdata, home computers or cable, we have to look at what's happening with people, the potential users.

Some of the very general trends are that people have more leisure time; they're staying home more because of the gasoline price increases and they have more disposable income. These trends could indicate receptivity to new media.

The second area is newspapers.

Busiress Week in February 1980 stated that electronic transmission of information "could be coming along at just the right time for newspapers. They have been searching for new markets...because their primary market is no longer growing. Over the past 10 years, daily newspaper readership has stagnated even while the nation's population increased 9%".

The generation that was raised with TV doesn't read as much. They're accustomed to TV for not just entertainment, but for programmed learning, educational programs and games. With the stagnation in newspaper circulation, there's been an increase in TV viewing, up to 6 hours and 13 minutes daily, per capita.

The third area I'll quickly touch on are some trends in information and computers.

As an information junky, I'm fascinated by these figures:

--45% of the U.S. labor force is involved with information

handling and processing.

--40% of the Gross National Product is information related.

--1/8th the world's population was involved in knowledge or information producing jobs in 1900.

--By the year 2000, 50% will be.

--47,775 hours of an average person's life is spent in information gathering.

These revolutionary time we live in will probably be called the Information Age by historians. The industrial world is being transformed by the computer into the information world.

Computers will continue to revolutionize information, as their price decreases by an average of 35% per decade, meaning that storage costs decrease all the time. If television sets had improved in price performance the same way as computers have, a TV would cost 18 cents.

Banking, medicine, all phases of life have been revolutionized by the computer. Publishing is one of the most recently affected.

We can expect to see encyclopedias, almanacs and the Bible available on line, within a year or two.

Anything that is available in digitized form has potential for distribution electronically to a wide audience.

How do newspapers fit in?

Newspapers are in an enviable position in this information revolution. Instead of reacting to teletext and viewdata, they can act. However, it will take a major re-evaluation of the goals of a newspaper. Shakespeare said that the past is prologue. If we look at other major industries, we

see that our need is to stop thinking of the business of the newspaper as news, and to start thinking of it as information. I don't have time to give you more than a couple of examples from the past to illustrate my point. Railroads did not appreciate that their business as transportation. Movie production companies passed up a golden opportunity to provide entertainment for, rather than in competition with, television studios.

In contrast, the petroleum industry appreciates that its business is energy, and they are active in solar, coal and alternative energy research and development.

If newspapers utilize their information collection, analysis, storage & dissemination capabilities, I fore see that the production of a newspaper will be only one part of its business.

Newspapers are already sitting on a gold mine. That gold mine is information. Information is now a commodity that is bought for money by businesses, and is moving into the home market, where there appears to be a market.

The Source is calling itself "America's information utility", joining the ranks of the other indespensibles of water, power, telephone, etc.

What can newspapers do?

Newspapers have always had an enormous advantage over other media, in their large, but expensive news gathering news teams. The end product that is generated, the news, is typically printed once. It is usually converted into clippings, at medium cost, in the editorial library for

archival and reference use by a very small group of users. Usually nothing is done with the electronically recorded news.

Since gathering the news and inputting it is more expensive than retrieving it electronically, it makes economic sense to explore possible uses and markets for the information.

The analogy is probably appropiate that what we have is an expensive moon vehicle that gets on the moon but isn't designed to land.

With front end systems in operation at most major newspapers, vendors such as ATEX are developing electronic storage systems for the library, so that the moon vehicle can land. Not only can the electronic news record make an effective automated library that overcomes lots of the bugaboos of a manual operation of lost clips, etc, but it opens up enormous possibilities for research that can enhance the quality of research and reporting. Once the library is automated, there are new possibilities for merchandising the information. The analogy of the moon vehicle would be it lands and their scoops up samples.

Some ways of merchandising information are selling restaurant reviews, travel articles, etc. to teletext producers.

--distribution of the data for a royalty through companies such as The Source, to homes and businesses.

--establishment of a viewdata company by a newspaper to distribute its own recycled news.

--a marriage with cable etc.

Obviously the key step is to make the decision is to automate the library with a system interfaced with the front end system.

What about the non-automated library?

There's some possibilities here for marketing microfiche and copies of clips.

It's not economically feasible to keyboard all of it, altho current and archival key files, say on the Mob, or Arizona Indians could be. The Washington Post is using inexpensive labor in Hong Kong to keyboard its older clips into the NEXIS System.

The potential commercial market would be for current information to politicians, contractors, lawyers, banks, elected officials etc.

What I'm proposing then is an information marketing department, that would be based on selling information in both electronic and clipping form and providing research services.

The Financial Times of London, has a department within the library for that purpose. There's a staff of 34 who serve the FT's own newsroom, and a separate staff of 35 who research for industry. Over £700,000. was earned last year.

The Times also sells financial and business data thru Prestel, and receives a royalty every time the data, called Fintel, is used. It is also negotiating in the U.S. data base broker. Once it goes on-line, even more possibilities will present themselves.

In the U.S.A., the NYT sells its recycled information in several formats.

1. It sells selected consumer information and headlines to the Source.
2. It has set up an advertising marketing intelligence department.
3. Abstracts are made of the news each day and made available on-line.
4. It is now working with Docu-Master software on a full text retrieval system that will increase its marketing potential for commercial and home

viewers.

There's lots of unanswered questions about how an information marketing department would function. It should obviously be quite distinct from the newsroom.

How billings would be handled raises interesting possibilities. Just as banks, computers and telephone companies work together for bill payment by phone, perhaps newspapers will charge users for information requests, and maybe even subscriptions and ads, by phone.

Another interesting possibility in the future is for research shops to be set up, to eliminate the information broker as middle man. Examples of this in other industries are phone shops, word processing shops and now Xerox shops. Xerox is hoping to take over some of the new, large market they helped to create, in photocopying, which lead to the rise of middle men companies such as Kwikcopy between the provider and the user.

Then there's other options for newspapers too, that have very little to do with electronics. Consider the sorry state of the Postal Service. Prices of stamps have increased 557% in 8 years, and service has got worse not better. Electonics, not money, is more likely to solve the problem. EMS becomes more feasible as more companies and individuals buy terminals.

It's doubtful that it will be cost effective for the Postal Service to stay in the house delivery business, although it has a social responsibility, newspapers might be one of these few, if not only, door to door delivery systems left. In this unique position, a newspaper could consider the delivery of other items, such as samples, junk mail, magazines,

and even bread and milk! The idea isn't as crazy as it first sounds. The Louisville Courrier Journal is already experimenting with delivery of magazines.

Newspapers are faced with many options to choose from in this information revolution. Their future health depends to a large extent on what decisions are made to exploit that gold mine of wealth called information.

Then, instead of asking what impact will teletext and viewdata have on newspapers, we can talk about the impact of <u>our</u> information on those media.